# Species Fact Sheet Mardon Skipper Polites mardon







STATUS: CANDIDATE

Mardon skipper potentially occurs in these Washington counties: Skamania, Yakima, Klickitat, Pierce, and Thurston

(Map may reflect historical as well as recent sightings)

The Mardon skipper butterfly, *Polites mardon*, was designated a federal candidate species in 1999.

## **Current and Historical Status**

The historical status of the Mardon skipper is not precisely known. Abundance estimates and distribution for this species prior to 1980 are nonexistent. This species most likely declined with the decline of early seral grassland habitat. Post 1980, mardon skippers were historically collected from four widely separated locations: the south Puget Sound region of Washington, the southern Washington Cascades, the Siskiyou Mountains of southern Oregon, and coastal northern California. Prior to 1980, very little information was known about Mardon skippers. It was thought to be endemic to Washington State only. Interest in the species has

led to additional surveys and improved information on the species distribution. By 2000, this species was known to occur at more than 130 sites located in south Puget Sound and the Mt. Adams area in Washington; the Siskiyou Mountains in southern Oregon; and Del Norte County, California. All populations are relatively small with few populations supporting more than 50 individuals.

In Washington, this species has been observed and is regularly surveyed on south Puget Sound prairies and on grassland openings in a forest matrix in the southern Cascades of Washington. As recently as 2009, only 2 populations were detected on south Puget Sound prairies, one at Scatter Creek Wildlife Area in Thurston County and one on the Artillery Impact Area at Fort Lewis, Pierce County. As of February 2009, the species was known to occupy 97 sites in the southern Cascades of Washington, 23 in southern Oregon and 9 in northern California. Very few (less than 10%) populations support greater than 50 individuals and most populations had fewer than 10 individuals during single day surveys.

# **Description and Life History**

The Mardon skipper is a small (<1 inch), tawny-orange butterfly with a stout, hairy body. The upper surface of both wings is orange with broad dark borders. From below, the wings are light tan-orange with a distinctive pattern of light yellow to white rectangular spots. Males are smaller than females and have a small, dark brown streak on the upper surface of the forewings. Mardon skippers have a fast, skipping flight, bent antennae clubs, and a characteristic basking posture in which the forewings are held at a 45-degree angle and the hind wings are fully spread.

Mardon skippers are nonmigratory and complete one life cycle annually. Adults emerge in June and July for a month-long flight period. After mating, females deposit their eggs into tufts of bunchgrass, *Festuca roemeri, F. idohaensis*, or *F. rubra*, California oatgrass, *Danthonia californica*, and sedge, *Carex spp.* Eggs hatch after six to seven days and larvae will feed on fescue, *Festuca sp.*, for about three months. During the winter, Mardon skippers hibernate as larvae.

### Habitat

In the South Puget Sound Region of Washington, the Mardon skipper is found on glacial outwash prairies, with abundant Roemer's fescue interspersed with early blue violet. Larvae feed exclusively on fescue. Adults feed on nectar from a variety of herbaceous plants, however, they prefer the early blue violet and common vetch. Nectaring has also been observed on common camas, *Camassia quamash*, prairie

lupine, *Lupinus lepidus*, fine-leaved desert parsley, *Lomatium utriculatum*, western buttercup, *Ranunculus occidentalis*, sea blush, *Plectritis congesta*, and yarrow, *Achillea millefolium*. Females lay eggs mostly in sparsely vegetated areas in small Roemer's fescue bunches (Henry 2010).

In the southern Cascades of Washington, the Mardon skipper is found in open grasslands within ponderosa pine, *Pinus ponderosa*, savanna/woodland, or at higher elevations in the grand fir (*Abies grandis*) zone. Populations in the southern Cascades of Washington are commonly associated with Idaho and red fescue. Mardon skipper in this region are known to use as many as 23 species for larval feeding. Adults have frequently been observed nectaring on vetch, *Vicia spp.*, penstemon, *Penstemon procerus*, and sego lily, *Calochortus spp.* In this region, females tend to be more of a generalist in oviposition selection than those in South Puget Sound and oviposition occurs in densely vegetated areas.

### Reasons for Decline

The loss of habitat is the primary threat and cause of the butterfly's decline. Mardon skipper habitat is threatened today by forest encroachment, native and nonnative plant invasions, development, recreational activities, grazing, agricultural practices, military training, fire, and the application of insecticides (Btk).

## **Conservation Efforts**

In Washington several conservation measures for this species have been implemented. A Candidate Conservation Agreement with Assurances (CCAA/CCA) is currently being developed for several grassland associated species, including the Mardon skipper. Several agencies (DOD (Joint Base Lewis McChord), Washington Department of Fish and Wildlife, Washington Department of Natural Resources, Thurston County, Port of Olympia, Wolf Haven International, Caveness Ranch, and The Nature Conservancy) are collaboratively working with the FWS to develop this agreement. The CCA/CCAA will provide long-term conservation on more than 26,000 acres of grassland habitat in the south Puget Sound region of western Washington.

Restoration of South Puget Sound prairies has resulted in temporary control of Scot's broom and other invasive woody plants through the use of herbicides, mowing, and prescribed fire. The TNC of Washington, with funding from the FWS and the Department Of Defense, has conducted restoration projects on grassland habitat at JBLM, Thurston County's Glacial Heritage Preserve, Scatter Creek

Wildlife Area, the Morgan property, and at the WDNR's Mima Mounds and Rocky Prairie Natural Area Preserve.

Conservation efforts on National Forests in Washington have included conifer removal in meadows, invasive plant treatments, placement of off-road vehicle barriers, and construction of cattle exclosures. In the Southern Cascades region, habitat restoration projects for the Mardon skipper at two locations on the Gifford Pinchot National Forest are currently in progress by the USFS. To date, cooperative projects on the Gifford Pinchot National Forest have maintained or restored meadow habitats on approximately 26 acres.

Biologists from the WDFW and the Oregon Zoo have been implementing and refining captive rearing methods for Mardon skipper. This work has been ongoing for several years. Early results have not been successful due to disease outbreaks in the facility. The acquisition of a small 9130 acres) private parcel of prairie land in 2005 with USFWS funding, now owned and managed by the Nature Conservancy, with WDFW holding fee title to the land will contribute to the conservation of several prairie associated species in south Puget Sound. If Mardon skippers can be reared successfully in captivity, the techniques may be used to facilitate reintroduction of the species to this site and others within its historical range.

### References and Links

Listing Status
Species Assessment
USFWS Threatened and Endangered Species Profile
USFWS Endangered Species Program
Xerces Homepage
South Sound Prairies
Oregon Zoo